

Attachment #5

CBC CHAPTER 9

Fire Protection Systems

SECTION 907 Fire Alarm and Detection Systems

(All references to R1's and R2's are as defined in the 2006 IBC.)

CBC 310.10 Fire Alarm Systems. Group R, Division 1 Occupancies shall be provided with a manual and automatic fire alarm system in apartment houses three or more stories in height or containing 16 or more dwelling units, in hotels three or more stories in height or containing 20 or more guest rooms and in congregate residences of 20 or more [for SFM] in accordance with Chapter 35 and the California Fire Code. A fire alarm and communications system shall be provided in Group R, Division 1 Occupancies located in a high-rise building.

IBC 907.2 Where required. An approved manual, automatic or manual and automatic fire alarm system installed in accordance with the provisions of this code and NFPA 72, as amended in Chapter 35, and shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.9, unless other requirements are provided by another section of this code. Where automatic sprinkler protection installed in accordance with Section 903.3.1.1 or 903.3.1.2 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required. [F]

Purpose/Rational:

(SFM) Currently the State Fire Marshal amends NFPA 72 and reflects the amendments in the Referenced Standards Chapter.

CBC 310.10 EXCEPTIONS:

2a.[For SFM] A separate manual and automatic₁ fire alarm system need not be provided in buildings that are protected throughout by an approved supervised fire sprinkler system having a local alarm system for the notification of all occupants₂. Occupant notification shall result from actuation of any flow of water or the operation of any manual station₃.

Purpose/Rational:

₁ There is no longer a need for this amendment for a manual and automatic fire alarm system for **R-1's**. The requirement and exceptions for a manual fire alarm systems in the IBC and IFC are exactly the same as currently in the CBC. The IBC and IFC provisions are more restrictive than the CBC for an automatic fire alarm system because there is no

exemption from the automatic smoke detection in interior corridors in the IBC, even if it is in a building that is protected throughout by an approved supervised fire sprinkler system.

¹ There is no longer a need for this amendment for a manual and automatic fire alarm system for **R-2's**. The requirement for a manual fire alarm is more restrictive in the IBC and IFC reducing the number of dwelling units/sleeping units to 16 to trigger the requirement. The threshold to require sprinklers in the CBC was more restrictive than the threshold for an automatic fire alarm system so the CBC Exception 2a. *[For SFM] A separate manual and automatic fire alarm system need not be provided in buildings that are protected throughout by an approved supervised fire sprinkler system* an automatic fire alarm system was never required.

IBC/IFC 907.9.2 Audible alarms. Audible alarm notification appliances shall be provided and shall sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibel (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupied space within the building and shall notify all occupants. The minimum sound pressure levels shall be: ~~70~~ 75 dBA in occupancies in Group R Division 1 and 2 occupancies and I-1 occupancies; 90 dBA in mechanical equipment rooms and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 120 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72, as amended in Chapter 35, and audible alarm notification appliances shall not be required.

Purpose/Rational:

² IBC 907.2 is less restrictive than CBC 310 as it requires audibility in every occupied space within the building eliminating the audibility requirement for notification throughout the building or occupancy. It is assumed the SFM will continue to amend NFPA 72, this change to 75 dBA is to provide consistency.
